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August 2, 2007

Mr. Michael Berkoff
Remedial Project Manager
United States Environmental Protection Agency
Region 5, Attn: SR-6J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Subject: Response to Comments on Work Plan and Field Sampling Plan
12th Street Landfill, Kalamazoo River Superfund Site Operable Unit #04
Plainwell, Michigan

Dear Mr. Berkoff:

On behalf of Weyerhaeuser Company, RMT, Inc. (RMT) provides the following responses to comments addressed in your letter dated July 31, 2007. For your convenience, USEPA's comments are provided in italics with our responses in red.

Workplan

General Comments

1. *The document provides limited detail for the basis of the design. Subsequent documents should include detail on the activities that will be performed with data supporting planned activities.*

   You are correct, the Powerhouse Channel Emergency Response Work Plan was developed to provide information on the overall approach to the Emergency Action and provide background for reviewers of the Field Sampling Plan and the Quality Assurance Project Plan (QAPP). In contrast, the Emergency Response Plan Design Report (Design Report) was developed to provide the basis for design as well as more detail on the construction/monitoring activities. The design basis is discussed throughout the document with particular emphasis within the following:

   a. Monitoring Plan – Section 3
   b. Extent of Residuals – Appendix B
   c. Slope Stability – Appendix E
   d. Erosion Protection – Appendix F

   The following information should also be provided in subsequent documents:

   - *An evaluation of the data previously collected.* Included within the Design Report, specifically in Appendix B (Residual Data), Appendix C (Geotechnical Data), and Appendix F (Erosion Protection).
   - *The excess capacity of the landfill.* The landfill was assessed to determine if there was adequate capacity within the existing landfill footprint to accept the residuals from the channel, relocated residuals from areas along the edges of the main fill area, and residuals from the Plainwell Mill Banks Emergency Action. The landfill capacity was evaluated incorporating a number of conservative assumptions into the modeled design and is estimated to be at least 12,000 cubic

yards Thus, the available capacity was determined to be sufficient to accept the volumes estimated from these three possible source areas. If needed by USEPA, this assessment and the associated excess capacity estimate can be made available. A more refined estimate of excess capacity based upon additional geotechnical testing of fill material characteristics along the south, north, and west edges of the landfill will be performed during the OU-4 Remedial Design. Those detailed assumptions and capacity estimates will be included in that design report.

- *Volume of waste to be added to the landfill.* As indicated in the Design Document, we are estimating 300 to 500 cubic yards of residuals from the former powerhouse channel and approximately 5,000 cubic yards of soil and residuals from the eastern face of the landfill. Additional volumes of residuals from the Plainwell Mill bank are being estimated. The disposal site for these Mill bank residuals is not yet finalized.
- *It appears that investigation derived waste from the Plainwell Mill site is being proposed for disposal in the 12th Street Landfill. As of our most recent discussion, it sounded like this scenario was unlikely. If 12th Street is no longer the intended disposal location for Plainwell Mill materials, please make this clear.* Investigative derived waste from previous investigations performed by the USEPA are presently located at the landfill and will be disposed of within the landfill.

  Disposal options for investigation derived waste (IDW) from CERCLA-related activities at the Plainwell Mill have not been finalized. The final disposition of IDW or other residuals associated with the Plainwell Mill site will be approved by the USEPA prior to disposal either at the 12th Street Landfill or other disposal facility.
- *The 'OSC' acronym should be preceded by 'RMT.' This acronym is used to refer to U.S. EPA's On-Scene Coordinators, and some distinction should be made between RMT On-Site Coordinators and U.S. EPA's On-Scene Coordinators.* The OSC terminology was not utilized within the Design Document. The FSP has been modified as requested.

Specific Comments

1. *Figure 2*
   a. *The data collected and evaluated to determine the sediment removal area must be provided to verify the removal boundaries.* Detailed in Appendix B of Design Report.
   b. *The label "APPROXIMATE LIMITS OF WASTE" noted on the figure does not point to a boundary.* Figure 2 has been modified for the Design Report.
   c. *The earthen section of the Plainwell Dam is not identified on the figure.* The earthen dam section is outside of the limits of the Powerhouse Channel Emergency Action plan but has been added to the revised Figure 2.
   d. *What coordinate system is being used?* Coordinates used are Michigan State Plane – South Zone – Identified on revised Figure 2.
2. ***Section 4.1 Clearing and Grubbing** – The text refers to two (2) 100x100' areas on top of the landfill that will be used to construct pads for sediment and soil placement. Figure 2 shows two (2) 200x200' containment areas and a 100x100' water treatment area. The text and figure should be consistent.* Text and figures in design plan are now consistent. Residual and Fill pads are 200' x 200 ' and water treatment area is 100' x 100'.

3. ***Section 4.3 Sediment/Soil Containment Area*** – *Is the 3rd sentence referring to the existing cover? What is the depth of the existing cover?* Text has been modified in Sections 2.2.3 and 2.2.4 of the Design Report. The material moved is existing cover which ranges from 2 to 7 feet thick.

4. ***Section 5 Portadam Placement and Dewatering*** – *Additional information should be provided on the intended use of the Portadam.* General Response: More detail is included in Section 2.3 of the Design Report and in the following responses.

    a. *Has an evaluation of the sediment consistency and ability to support the Portadam been performed? What is the consistency of the sediments in the river bottom?* Both the soft deposits and the underlying coarse channel sediments were in the channel were visually assessed during the bathymetry study (Attachment B of Design Report). The channel base consists mainly of sands, gravels, and cobble. The soft sediments are sporadic throughout the channel and are 1 to 1.5 feet thick near the Portadam location. The sediment in the channel has also been visually assessed by a representative from Portadam.

    b. *What is the typical range of river elevation? Are there any provisions being taken for flooding out of enclosed area in mid-excavation?* The range of river elevation in this area is approximately 2 to 2½ feet. The Portadams being used are 4 to 5 feet above existing water elevations. More detail on Portadam installation can be found in Section 2.3.1 of the Design Report

    c. *What allowances will be made at the pump discharge so that sediment outside of the Portadams is not disturbed due to scour?* Discussed in Section 2.3.2 of the Design Report. The water will be pumped into a metal or concrete dispersion structure located within a secondary retention area adjacent to the Portadams. The diversion structure will absorb the impact of the initial discharge and minimize any disturbance of sediments.

5. ***Section 5 Portadam Placement and Dewatering*** - *Additional information should be provided on the turbidity monitoring for the decanted water.*

    a. *What is the turbidity monitoring frequency?* Discussed in Section 3 (Monitoring Plan) and on Table 3-1 of the Design Report

    b. *What is the basis for the turbidity criteria of two times the upstream station?* Based on the requirements identified in the Former Plainwell Impoundment Time Critical Removal Action Design Report.

6. ***Section 6 Sediment/Soil Removal Operations***

    a. *Information should be provided on the construction of the pad potentially required for the excavator to reach further from shore.* Further discussed in Section 2.3.3. The pad will consist of either crane mats or compacted soil matting depending on field conditions and actual surface conditions at shoreline.

    b. *Will visual paper residuals be removed from the underlying sediments prior to the construction of the pad? What materials will the pad be constructed of and how will it be disposed of?* The removal plan is further discussed in Section 2 3 3 of the Design Report. Visual residuals will be removed prior to placement of any access pad material. Any material placed will be removed from the channel and placed within the containment pads on top of the landfill.

7. ***Section 6 Sediment/Soil Removal Operations*** – *There is no mention of monitoring for PCBs in discharge water from dewatering the sediment. What will the discharge limits be?* Discussed in Section 3

(Monitoring Plan) and on Table 3-1 of the Design Report. Discharge limits will be set based on regulatory review comments on the discharge permit substantial compliance submittal.

8. ***Section 8 Water Management*** *- What will the water capacity be in the containment area and in the tanks?* Further discussed in Sections 2.2.3 and 2.2.5 of the Design Report. The containment pad water holding capacity depends upon how much capacity is utilized by the solid portion of the removed residuals, but is currently estimated to be approximately 20,000 gallons. The proposed holding/settling tank provides another 20,000 gallons of water management capacity. As indicated in the Design Report, additional storage capacity will be added if necessary.

Field Sampling Plan

General Comments

1. *This FSP does not appear to directly cover any sampling efforts. Prior to sampling, a complete description of the effort, including numbers of samples, types of analysis, and sample locations, should be provided.* Sampling for the Emergency Action is described in Section 3 (Monitoring Plan) and on Table 3-1 of the Design Report.
2. There are numerous citations throughout the document; however, full references are not provided Specific references will be provided or deleted if they are included in the Design Report.
3. The MA-FSP can be applied to other areas of the Site, including Operable Unit No. 7, the Plainwell Mill, though only after an amendment or addendum. As such, I would recommend the editing of the following sections to remove mention of Operable Unit #7:
    a. Section 1.4 (Page 3 of 23)
    b. Section 2.1 (Page 7 of 23)
    c. Section 3.1.1 (Page 12 of 23)

    The Multi-Area FSP was intended to complement the Multi-Area QAPP in total content and flexibility for revision. The concept to the MA-FSP was to organize this document in a manner that provided an opportunity for expansion/revision through supplemental sections, updated sampling tables, and submittal of additional sampling Standard Operating Procedures (SOPs).

    Clarification can be provided in the above mentioned sections however to reflect this concept to facilitate the use of this FSP as a Multi-Area document.

Specific Comments

1. ***Table 2-1*** *- Sample parameters and frequencies should be identified for each type of sample.* Sampling for the Emergency Action is described in Section 3 (Monitoring Plan) and on Table 3-1 of the Design Report.
2. ***Section 3.1 Sample Designation*** *- Please verify that the sample numbering system presented in Section 3.1 is consistent with the existing Kalamazoo River Database requirements to allow others the ability to utilize the data if needed.* Please provide a contact so that we can confirm that the current sample designations are consistent with the database requirements. To expedite review and approval, the proposed sample numbering system provides specific information on the sample type, location, and date. Furthermore, the sample designation format and information provides sufficient information to allow adaptation to whatever format is needed for the Kalamazoo River Database.

3. ***Section 3.1 Sample Designation*** - *With the proposed sampling number system, it appears there could be duplicate numbers for samples if multiple sampling events take place. How will samples be differentiated if there are multiple sampling events?* The sample numbering for each sample type is sequential starting at one. In order to limit the number of digits/letters in the actual sample number, samples with the same base number will be differentiated by the sample date written separately on the sample label, the chain of custody form, and in the field logbooks. In the event of multiple samples from the same location and same date, further differentiation will be noted on the container, written in the field logbooks, and included in the analytical database (*i.e.*, time of sample, depth of sample or notation). All information will be recorded with the validated results in the final database for electronic storage and retrieval, so multiple sampling events can be accommodated.

4. ***Section 3.1.3 Sample Number*** - *The example sample designation provided begins with "WY". Section 3.1 identifies that the sample designations begin with the sample location. The placement of "WY" before the sample location is not consistent with the naming convention provided in this document.* Thank you for the comment. The WY has been removed from the example on Page 12.

5. ***Section 3.1.4 Sample Date*** - *Both the sample date and time should be included in field logbooks.* As stated in Section 3.1.4, both the sample data and time will be included in the field logbooks. This section of the report has been renamed to Sample Date and Time for additional clarification on Page 13.

6. ***Section 3.2 Sample Containers and Preservation*** - *Sample containers should also be labeled with the sample date and time in accordance with Section 3.1.* As stated in Section 3.1, sample containers will be labeled with the sample date and time. The change is noted on Page 14.

7. ***Section 4.2 Selection of Parameters*** - *The text states that the number and location of samples are summarized in Table 2-1 and Worksheets #17 and #18 in Appendix C. Turbidity monitoring in surface water is only defined as periodic. The frequency of turbidity monitoring should be defined.* The details regarding the sample frequency are provided in Table 3.1 of the Design Report. In summary, turbidity will be sampled hourly within the Kalamazoo River during channel excavation activities. Turbidity sampling within the groundwater collection sump will be performed approximately every 3 hours while equipment is working within the excavation area or site observations warrant additional sampling. Revision noted in Table 2-1 and QAPP.

8. ***Section 4.2 Selection of Parameters*** - *Further detail for monitoring all discharge parameters should be provided with a process for modifying the treatment if criteria are exceeded.* The details regarding the discharge parameter monitoring are provided in Section 3 of the Design Report. After final regulatory review comments on the discharge permit substantial compliance submittal are received, modifications to the parameter list will be made, if required, to reflect those comments.

9. ***Section 4.4.1 Field Measurements*** - *Field calibration frequencies are identified in QAPP Worksheet #22. A calibration check of field measurements should also be performed on a daily basis. If the calibration drifts, an entire weeks worth of data could be lost before the problem is identified.* The turbidity data will be reviewed several times per day and gross calibration errors will be identified and corrected immediately. The YSI Sonde equipment specified for data collection during the 12th Emergency Action is designed for long-term (1 to 2 months) unattended sampling with calibration on a monthly basis (YSI Environmental Operations Manual, pp. E-6). As such, calibration on a weekly basis shall be sufficient to ensure equipment is operating within appropriate QA/QC requirements. If data drift becomes an issue, a calibration check will be used on a more frequent basis (biweekly) to reduce the data at risk.

10. ***Section 4.4.4 Analytical Quality Assurance Considerations*** - *Discrepancies were identified between the text in this section and QAPP Worksheet #20.*

a. ***Field Equipment Blanks*** - *The text identifies "field equipment blank" and "field equipment duplicate." Please clarify the description and resolve the discrepancy with QAPP Worksheet #20 which states the frequency is TBD.* The text has been revised to state field equipment blank in Section 4.4.4.

b. ***Field Equipment Blanks*** - *The text identifies that one equipment blank will be generated for each location sampled for low-level mercury. This analysis is not included in QAPP Worksheet #20.* The text has been revised to remove references to low level mercury.

c. ***Trip Blanks*** - *Trip blanks are listed in the text but not in QAPP Worksheet #20.* The text has been revised for consistency with Worksheet #20.

d. ***Field Blanks*** - *The text identifies that one field blank will be generated for every 10 primary samples. QAPP Worksheet #20 identifies the frequency as TBD.* The text correctly identifies the number of field blanks. The QAPP table will be updated.

11. ***Section 5 Field Physical Measurements*** - *The text includes a description of how staff gauges will be surveyed; however, there is no description of how or where the staff gauge will be installed.* Staff gauges are not part of the 12th Street Landfill Emergency Action and will be removed from the FSP at this time. If required for other activities, a full description will be added as an addendum.

12. ***Section 6 Management of Investigation-Derived Waste*** - *It appears that investigation derived waste from the Plainwell Mill Site is proposed to be disposed of at the 12th Street Landfill. Are there plans to dispose of wastes from other locations at the 12th Street Landfill? Is this allowed under the CD?* Discussion of disposal locations for newly generated investigative wastes (from the Plainwell Mill or pre-design activities from 12th Street Landfill itself) are on-going separately with the USEPA.

If you have any questions regarding the information provided, please contact me at 262-879-1212.

Sincerely,

RMT, Inc.

James L. Hutchens
Senior Project Manager

cmk

cc: Jennifer Hale, Weyerhaeuser Company
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